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PHD NMCI Lessons Learned

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Getting ready

- **Organization**
  - **NMCI requires a full time management staff**
    - **PHD used a Program Manager, an Implementation Manager and 4 Activity Customer Technical Representatives for 2450 NMCI seats**
    - **In addition, each department requires 1-2 people working NMCI 30-50% of their time**
- **As Is Infrastructure**
  - **PHD stopped buying new computers 18 months in advance of the *original* NMCI schedule (24 months in advance of the actual schedule)**
    - **Many old computers were at or beyond the end of their effective life by the time NMCI arrived**
    - **PHD needed to work out a Tech Refresh plan with the ISF independent of the NMCI rollout to ensure all users had working computers**

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Getting ready

- **CLIN 29 and 32 needs**
  - **Goal is to get the government out of the IT infrastructure business**
  - **To get out of that business in out-of-scope IT areas, unpriced CLINs 29 (Legacy Systems Support) and 32 (External Network Interface) must be negotiated**
  - **Negotiations for unpriced CLINs have been very slow**
    - **PHD has not yet gotten a single one back**
    - **If commands are planning on using this service, they must start early and get the paperwork in as soon as they go to Assumption of Responsibility (AOR)**

Getting ready

- Server Farms
  - Based on PHD's experience, we do not recommend shared government/ISF server farms
    - Security issues, access issues, and questions of who is responsible for what will come up repeatedly
  - Recommend providing ISF a site and have them build what they need

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Getting Ready

- **Users**
  - The only thing users know about NMCI is what they have read, and most of that is negative
  - NMCI is a big change in IT management
    - IT as a procured service, not an intrinsic government responsibility
    - People who liked to be able to tinker with their computers are going to be upset that they can no longer do so
  - Expect users to go through the five stages of grieving
    - Denial
    - Anger
    - Bargaining
    - Depression
    - Acceptance

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Legacy Applications

- **Application Identification**
  - **Find <u>everything</u>. Any app which does not surface during the identification process is automatically eliminated from consideration**
    - **Unless this is done, apps will continue to materialize for months and you will never be able to stabilize your requirements list**
- **Application Rationalization**
  - **Categorize by function**
  - **Most current version only**
  - **Select primary and alternate apps in each category**
  - **Navy anticipates 80% reduction from initial application count**

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Legacy Applications

- **Applications testing**
  - **Requires significant commitment of time from application users**
  - **If users do not show, the app will be Quarantined (not available from NMCI desktop)**
  - **Up to 50% of legacy apps at some NMCI Phase I commands failed testing process and went to Quarantine**
- **Solution development and deployment**
  - **ISF must package apps for deployment**
    - **Local install**
    - **Push from local server farm**
    - **Push from NOC**

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Legacy Applications

- Once the command's Rationalized list closes, no new apps can be added until after Cutover ends, unless a waiver is granted from SECNAV, via Echelon II commander
  - By default newly discovered apps must go to Quarantine, but this may not be an acceptable solution if the users spend most of the day in them
  - Citrix may provide a solution for some apps (see next slide)
- DOD, and other Navy commands that are not yet in NMCI do not understand, or ignore, the certification requirements, and will continue to try to push new versions out after the window has closed

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Legacy Applications

- **Citrix and Aquifer**
  - **PHD has had good success creating solutions using Citrix Metaframe Windows terminal server for applications that fail NMCI testing**
    - **The Citrix client software is NMCI certified**
    - **Applications run on the legacy side on a Citrix server and the output is pushed to the NMCI computer, similar to a terminal program**
    - **Citrix is a temporary solution, since all apps that fail NMCI also get rejected by Navy Applications and Database Task Force (NADTF)**
  - **A similar program to Citrix, useful under slightly different conditions is Systems Management Engineering's Aquifer tool**

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Cutover Planning

- User to Application Mapping (UTAM)
  - Critical to successful rollout
  - Every computer with an incorrect UTAM will require rework, and rollout schedules will be seriously impacted
  - Government must review ISF UTAM with great diligence to identify all problems early on

Cutover Planning

- Printer planning
  - ISF will connect legacy standalone printers
    - *If* they are Windows 2000 compliant
    - *If* the user has the printer driver in hand when the technician arrives
    - *If* the printer has sufficient memory to spool print jobs
      - The White, Blue and Thin Client workstations come with only 128MB of RAM and virtual memory locked
      - Windows 2000 alone wants most of the 128MB
      - Small printers such as inkjets do not have internal memory to spool print jobs to
      - Large files and print job spooling can cause the computer to run out of both regular and virtual memory, resulting in a crash
      - ISF will therefore not install local printers that may cause their systems to crash

Cutover Planning

- **Printer Planning**
  - **ISF standard networked printers are Xerox 1235 (color laser) and Xerox/Tektronics 860 (color wax)**
    - **Will not print on non-standard paper sizes (e.g.: 11x17, or command stationery)**
      - **Until all users are within NMCI, and legacy network printers can move into the environment, the mix of printers will be a big inconvenience to users**
    - **Cost per page is high (with 860, very high)**
      - **Government is responsible for printer consumables**

Cutover Planning

- Standard memory
  - Based on PHD's experiences with workstations that come with only 128MB of memory, the command decided to upgrade all computers to a minimum of 256MB
  - It is minimally cheaper to buy the Red workstation than upgrade the White to 256MB
  - It is much cheaper to upgrade the White at the time the order is placed than to buy it and use a MAC later on

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Cutover Planning

- **Server Migration**
  - Every legacy server that will need connection to the NMCI environment must be identified early on so that its transition can be planned
  - Novell servers require an intermediate restaging of data on an NT server
  - The tool the ISF uses to migrate individual and group permissions is unreliable when used with either Novell or Windows 2000 legacy servers, and considerable time is required to manually check the results

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Cutover Planning

- Seat rollout schedules
  - NMCI Enterprise rollout process calls for unattended night installs
    - More government resources will be required for building access/escorts, etc.
  - Goal will be to roll as many seats as possible, as quickly as possible
- Local drive Data Migration plan
  - Data on local hard drives must be moved from the old computer to the new
  - If the old computer stays, and the user continues using it after the NMCI box arrives, data will get out of sync

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Cutover Planning

- **Standard Software**
  - **NMCI computers come with 10-20GB hard drives**
    - **There is sufficient room to load standard software packages even if not all users need them**
  - **For widely used GOTS software (financial, time and attendance, security clearance questionnaire, etc.) recommend having ISF load them on all NMCI computers, regardless of individual UTAM**

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Communications

- **Communications Plan**
  - Users need to be kept informed of what is going on
  - Provide regular emails to explain the process and next steps
  - Hold forums for them to ask questions
  - Expect strong negative feedback from some users; be prepared to deal with it locally before it escalates

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Cutover

- User availability
  - Command must make it clear that cooperation from all hands is expected
  - Some users will play hide-and-seek with the ISF (never be available when needed to complete their seat's rollout)
- Problem documentation
  - Users need to understand who to turn to for different kinds of problems: local help desk, ISF help desk, department POCs, ACTRs, etc
  - Command can get extracts from NOC Remedy database of open trouble calls
  - Command needs to locally develop a system of ageing calls to ensure that issues get closed in a timely manner

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Operational

- Site process and procedures
  - Order maintenance
    - Order will change continuously as people come and go
  - Move Add and Change (MAC)
    - Understand what constitutes a MAC, and when the government starts paying for them
    - Things that the government thought were part of the base contract are now being called MACs
- Rollout cleanup
  - Prepare a team to go to each and every user to see if he or she has what is needed
  - Do not delay in getting the legacy computers removed as soon as possible
  - The Gold Standard for completion metrics is the actual count of legacy computers taken away

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Conclusions

- The process will not be easy
- Commands will have to expend a great deal more government time and resources to complete Cutover than they expected
- Users will be confused by all the changes taking place and will need someone to ask questions of
- ISF and the government are in this as a team – we sink or swim together on the success of NMCI
- The support of the senior command personnel is <u>essential</u> to the success of NMCI